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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,391	04/04/2001	Tadasu Kawashima	03310/002001	2925

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EXAMINER

EGAN, BRIAN P

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 08/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,391

Applicant(s)

KAWASHIMA, TADASU

Examiner

Brian P. Egan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract is objected to because it contains two separate paragraphs. The abstract should be limited to one paragraph. Proper correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, for failing to use a proper means plus function, thereby rendering the claim indefinite. The examiner strongly suggests replacing the phrase, "wherein a surface of said base film is subjected to rubbing treatment with a rubbing means" with a proper means plus function. See MPEP § 2181. Otherwise, the claimed limitation sets forth a method limitation and is given no patentable weight in an article claim.

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6. Claim 1 is also rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention.

The phrase, "said adhesive layer and said printable face of said base film are in close contact with each other," is indefinite. It is unclear what constitutes, "close contact." Proper clarification and/or correction is required.

7. Claims 1-3, 5-6, 9, 11, and 17 are rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. The aforementioned claims have both article and method limitations and it is unclear what the applicant is intending to claim as his invention. For examination purposes, the article is being examined. Therefore, the method limitations have been given little to no patentable weight.

Specifically, the following limitations have been rendered method limitations that have been given no patentable weight:

Claim 1 – "wherein a surface of said base film is subject to rubbing treatment with a rubbing means..."; "said printing medium is wound into a roll."

Claim 2 – "said adhesive layer is formed by applying and then drying an adhesive layer starting solution containing an adhesive in an organic solvent."

Claim 3 – "wherein a surface of said base film is subject to rubbing treatment with a rubbing means..."; "said printing medium is wound into a roll."

Claim 5 – "said primer layer is formed by applying and then drying a primer layer starting solution containing an adhesive in an organic solvent..."

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Claim 6 – “said adhesive layer is formed by applying and then drying adhesive layer starting solution containing water as a solvent...”

Claim 9 – “said polylactic acid film is subjected to said rubbing treatment.”

Claim 11 – “said Bionelle film is subjected to said rubbing treatment.”

Claim 17 – “said printable face is subjected to rubbing treatment with a rubbing means.”

8. Claim 11 contains the trademark/trade name “Bionolle.” Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an aliphatic polyester and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlquist et al. (#2,532,011) in view of Taku (JP 07-330929).

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Dahlquist et al. teach a printing medium ("labels"; Col. 6, lines 72-74) comprising a base film (Fig. 3, #14) and an adhesive layer formed on one side of the base film (Fig. 3, #17) while the other side of the base film forms a printable face (Fig. 3, #15), wherein the printing medium is wound into a roll and the adhesive layer and the printable face of the base film are in close contact with each other (Fig. 1). The printing medium may further comprise a primer layer (Fig. 3, #16) formed on one side of the base film in between the adhesive layer and the base film. The adhesive comprises a natural rubber (Col. 3, line 69 to Col. 4, line 6).

Dahlquist et al. fail to teach the use of a base film whose surface has been rubbed to improve adhesion and a printing medium whose layers are biodegradable.

Taku, however, teaches the use of a rubbing treatment wherein a base film is rubbed prior to an adhesive being applied and then the substrate is dried (see Abstract). The rubbing treatment is not limited to any specific synthetic-resin film although polyester, polyimide, and polyamide films are most desirable (p. 3, paragraph [0013]). Taku teaches the use of a rubbing treatment for the purpose of improving the adhesive property of the film (p.5, paragraph [0035]). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have used a rubbing treatment for a substrate film with low adhering properties for the purpose of improving the adhesive property of the film as taught by Taku.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Dahlquist et al. by treating the base film with a rubbing means as taught by Taku in order to improve the adhesive property of the low-adhesion base film.

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The method limitations set forth in claims 1-3 and 5-6 have been given no patentable weight.

11. Claims 7-10, 12-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlquist et al. (#2,532,011) in view of Taku (JP 07-330929), and further in view of Shinoda et al. (#5,663,288) and Kanshin et al. (JP 08-267968).

Dahlquist et al. and Taku teach a printing medium whose adhesion is improved through a rubbing treatment as detailed above. Dahlquist et al. and Taku fail to teach the use of biodegradable materials in the printing medium composition.

Shinoda, however, teaches a degradable printing medium (Col. 1, lines 11-25; Col. 3, lines 15-16) comprising polylactic acid film (Col. 3, lines 25-29) with an opaque filler that does not inhibit the biodegradability of the base film (Col. 7, lines 45-48), a natural rubber based adhesive (Col. 9, lines 34-40), and a biodegradable receiving layer on the surface of the printable face (Col. 11, line 49 to Col. 12, line 3). Although Shinoda is silent to whether the polylactic acid is biaxially oriented, it is notoriously well known in the printing media art to use biaxially oriented polylactic acid film as evidenced by Kanshin et al. since biaxially oriented polylactic acid is excellent in transparency as well as many other physical properties while still being biodegradable (p. 5, paragraph [0028] of Kanshin et al.). Shinoda explains that conventional adhesive films made from polyvinyl chloride, polyolefins, or ethylene/vinyl acetate copolymers do not degrade or have a very slow degradation rate in the natural environment (Col. 1, lines 28-42; Col. 2, lines 3-17). Consequently, these films semipermanently remain when disposed after use and impair the scenery or destruct the living environment of marine organisms when abandoned in the ocean. Further, these films require a large amount of energy for incineration

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and PVC films particularly have a problem of developing toxic gas (Col. 2, lines 3-17). As a result, waste disposal of these general purpose resin films has been a serious social problem (Col. 2, lines 3-17). Therefore, one would be motivated to modify the material composition of printing mediums with biodegradable materials to help solve the aforementioned problems. Thus, Shinoda teaches a degradable printing medium for the purpose of providing a degradable adhesive film which is excellent in weatherability and can be degraded and disappeared in a natural environment after use (Col. 3, lines 1-4). Thus, it would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have modified a printing medium to include biodegradable materials for the purpose of providing a degradable adhesive film which is excellent in weatherability and can be degraded and disappeared in a natural environment after use as taught by Shinoda.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Dahlquist et al. to include biodegradable materials as taught by Shinoda in order to provide a degradable adhesive film which is excellent in weatherability and can be degraded and disappeared in a natural environment after use.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlquist et al. (#2,532,011) in view of Taku (JP 07-330929), and further in view of Kangas et al. (#5,563,023) and Natsume et al. (JP 411322949 A).

Dahlquist et al. and Taku teach a printing medium whose adhesion is improved through a rubbing treatment as detailed above. Dahlquist et al. and Taku fail to teach the use of a biodegradable colorant in the primer layer.

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Kangas et al., however, teach a printing medium wherein a colorant is used in the primer layer (Col. 2, line 64 to Col. 3, line 16). Although Kangas et al. does not explicitly state that the colorant is biodegradable, Kangas et al. teach that the colorant comprises pigments or dyes, a resin binder, and methyl ethyl ketone and propylene glycol monomethylether solvents (Col. 4, line 58 to Col. 5, line 2). It is notoriously well known in the art that these aforementioned materials are biodegradable as evidenced by Natsume et al. (see Abstract). Kangas et al. teach the use of a colorant for the purpose of matching colors within the substrate (Col. 5, lines 4-7). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have used a biodegradable colorant within the primer layer of a printing medium for the purpose of matching colors between the different layers of the substrate as taught by Kangas et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Dahlquist et al. by using a biodegradable colorant within the primer layer as taught by Kangas et al. in order to match the colors between the different layers of the substrate while still providing a material that will degrade over time.

13. Claims 7-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlquist et al. (#2,532,011) in view of Taku (JP 07-330929), and further in view of Yoshida et al. (#6,235,825).

Dahlquist et al. and Taku teach the use of a printing media as detailed above. Dahlquist et al. and Taku fail to teach the use of biodegradable substrates comprising Bionelle and polylactic acid.

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Yoshida et al., however, teach a printing medium (Col. 1, lines 45-48) wherein the base film comprises an aliphatic polyester (Bionelle) (Col. 4, lines 18-23; Col. 11, lines 51-55) and polylactic acid (see Abstract). The base substrate further comprises anti-aging agents (“antioxidants”) and opaque fillers (“colorant and ultraviolet absorber”) (Col. 6, lines 46-53). Yoshida et al. teach the use of a biodegradable substrate for the purpose of mirroring the beneficial properties of polyethylene, polypropylene, PVC, PET, and other resins that have excellent flexibility, thermal resistance, and water resistance, while solving for the aforementioned materials failure to degrade in the environment (Col. 1, lines 14-30). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have used a combination of biodegradable materials such as aliphatic polyester and polylactic acid in a printing medium substrate for the purpose of mirroring the beneficial properties of polyethylene, polypropylene, PVC, PET, and other resins that have excellent flexibility, thermal resistance, and water resistance, while solving for the aforementioned materials failure to degrade in the environment as taught by Yoshida et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Dahlquist et al. to include biodegradable materials in the base film such as polylactic acid and aliphatic polyester as taught by Yoshida et al. in order to mirror the beneficial properties of polyethylene, polypropylene, PVC, PET, and other resins that have excellent flexibility, thermal resistance, and water resistance, while solving for the aforementioned materials failure to degrade in the environment.

The method limitation set forth in claim 11 has been given no patentable weight.

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14. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlquist et al. (#2,532,011) in view of Taku (JP 07-330929), and Shinoda et al. (#5,663,288), and further in view of Auguste et al. (#6,162,858).

Dahlquist et al., Taku, and Shinoda et al. teach the use of a biodegradable printing media as detailed above. Although Dahlquist et al. and Shinoda et al. teach the use of natural rubber adhesives, Dahlquist et al. and Shinoda et al. fail to explicitly teach the use of a polyisoprene rubber with antiaging agents.

Auguste et al., however, teach the use of a polyisoprene adhesive (Col. 8, lines 32-42) with antiaging agents ("antioxidants") (Col. 5, lines 23-24) for a printable adhesive composite (see Abstract). Auguste et al. teach the use of a polyisoprene adhesive for the purpose of providing an adhesive that is stable when subjected to severe environmental conditions such as wide temperature ranges and high levels of humidity (Col. 2, lines 48-55). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have used a polyisoprene adhesive in a printing medium for the purpose of providing an adhesive that is stable when subjected to severe environmental conditions such as wide temperature ranges and high levels of humidity as taught by Auguste et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Dahlquist et al. by using a polyisoprene natural rubber adhesive as taught by Auguste et al. in order to provide an adhesive that is stable when subjected to severe environmental conditions such as wide temperature ranges and high levels of humidity.

15. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlquist et al. (#2,532,011) in view of Taku (JP 07-330929), and Shinoda et al. (#5,663,288), and further in view of Ashida (#6,162,858).

Dahlquist et al., Taku, and Shinoda et al. teach the use of a biodegradable printing media as detailed above. Dahlquist et al., Taku, and Shinoda et al. fail to teach the use of a rubbing treatment on the surface of the printing layer.

Ashida et al., however, teach a printing medium (see Abstract) wherein the printing layer is subject to a rubbing treatment with a cotton cloth (Col. 22, lines 40-41). Ashida et al. teach the use of a rubbing treatment for the purpose of determining the surfaces resistance to scratching (Col. 22, lines 41-42). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have subjected a printing surface to a rubbing treatment for the purpose of determining the surfaces ability to resist scratching as taught by Ashida et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Dahlquist to include a rubbing treatment of the printed surface as taught by Ashida et al. in order to determine the surfaces ability to resist scratching.

The method limitation set forth in claim 17 has been given no patentable weight.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

BPE
July 29, 2002


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

7/29/02